

PRODUCT BROCHURE

# Steel City<sup>®</sup> 5 SQUARE<sup>®</sup> boxes

It's time for an upgrade



# 5 SQUARE boxes

## Install peace of mind.

When hospitals, universities and government agencies require outlet boxes to increase safety, ensure minimum bend radius requirements and provide significant labor savings, they specify Steel City 5 SQUARE telecommunication and fire signal boxes.

Create a robust and unrivaled infrastructure for the life of the facility — it's time for an upgrade to 5 SQUARE boxes.

### **Increase capacity.**

5 SQUARE boxes offer more than double the cubic-inch capacity of a standard 4"-square deep box, making it faster and easier to route wiring and make terminations in the box.

### **Save labor.**

Turn a two-man job into a one-man job by storing the slack cable loop in the box for easy access by a single technician when terminating communications cables.

### **Reduce troubleshooting.**

The extra room in the 5 SQUARE box dramatically reduces the likelihood of ground faults and short circuits when installing large fire alarm devices.

### **Break out of the box.**

Electricians have long struggled with small, cramped 4" square boxes and the time it takes to get a wiring job done using them. But ABB provides solutions that give you the space you've always needed; solutions that enable you to break out of the standard box.

### **Create a robust, cost-effective infrastructure for the life of facility.**

5 SQUARE boxes (5" x 5" x 2.875") provide up to 88 cu. in. of interior volume — more than double the volume of a 4"-square deep box. The increased size of 5 SQUARE fire signal boxes helps eliminate ground faults and short circuits, and 5 SQUARE telecommunication boxes guarantee minimum bend radius, now and for future transmission rate increases over both copper and fiber optic cable.

What's more, 5 SQUARE boxes save money — and lots of it. In commercial construction, labor cost is the single largest expense for an electrical contractor. Our 5 SQUARE boxes can save contractors up to 50% in labor costs. By storing the recommended slack loop of communications cabling in the box instead of in a closet or drop ceiling, terminating cables at the box becomes a job for a single technician rather than requiring a second technician to assist in pulling cables out of the box for termination and then back into the conduit upon completion. This becomes even more critical in health care facilities, where opening ceilings is strongly discouraged due to contamination risk.

In addition, 5 SQUARE boxes provide equipment savings. Compared to standard electrical boxes, the larger size of 5 SQUARE boxes enables more circuits and zones to be pulled through, which potentially reduces conduit and installation costs.

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## Telecommunication boxes

No more getting bent out of shape worrying about cable bend radius.

With its increased size over standard boxes — and a slack cable/service loop in the box — a 5 SQUARE telecommunication box incorporates a cable management system guaranteeing minimum bend radius now and for future transmission rate increases.

A 5 SQUARE telecommunication box supports copper CAT5e, CAT6, CAT6A, CAT7, CAT7A and fiber optic cables as well as expected future generations of cables. The slack cable/service loop in the box reduces labor during installation as well as during maintenance, which further increases cost savings.

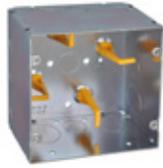
- Integrated cable management posts prevent kinked and over-bent cables to help ensure proper data transmission
- BICSI-recommended slack cable loop eliminates the need for a second technician in a remote location to assist in pulling the cable out of the box for connector termination
- Save up to 50% in labor
- Eliminate the need to remove ceiling tiles to access the slack cable loop, preventing damage and debris



## Telecommunication boxes



82181T-1-114



82181T-1234-1



82181T-1



82181T-1-114-CV



82181T-1234-1-CV



82181T-1-CV

### 5 SQUARE telecommunication boxes

Cat. no.	Bracket	Knockouts	Std. ctn. qty.
<b>2 7/8" deep, 64 cubic inches, cable management posts</b>			
82181T-1-114	—	Four sides: (1) 1" and (1) 1 1/4"; back: (1) 1/2"	20
82181T-1234-1	—	Four sides: (1) 1/2", (1) 3/4" and (1) 1"; back: (1) 1/2"	20
82181T-1	—	Four sides: (2) 1"; back: (1) 1/2"	20
82181T-1-114-CV	CV	Three sides: (1) 1" and (1) 1 1/4"; back: (1) 1/2"	20
82181T-1234-1-CV	CV	Three sides: (1) 1/2", (1) 3/4" and (1) 1"; back: (1) 1/2"	20
82181T-1-CV	CV	Three sides: (2) 1"; back: (1) 1/2"	20

NOTE: Use on Class 2 and Class 3 remote control, signaling and power-limited circuits only.



82C-1G-0



82C-1G-1/4



82C-1G-1/2



82C-1G-5/8



82C-1G-3/4



82C-1G-1



82C-1G-1-1/4



82C-1G-1-1/2



82C-1G-2



82C-2G-0



82C-2G-1/4



82C-2G-1/2



82C-2G-5/8



82C-2G-3/4



82C-2G-1



82C-2G-1-1/4



82C-2G-1-1/2



82C-2G-2

### 5 SQUARE device rings

Cat. no.	Raised (in.)	Cubic inches	Std. ctn. qty.
<b>Single gang</b>			
82C-1G-0	Flat	—	20
82C-1G-1/4	1/4	1.5	20
82C-1G-1/2	1/2	3.5	20
82C-1G-5/8	5/8	4.3	20
82C-1G-3/4	3/4	5.3	20
82C-1G-1	1	6.8	10
82C-1G-1-1/4	1 1/4	8.5	10
82C-1G-1-1/2	1 1/2	10.5	10
82C-1G-2	2	14.0	10

Cat. no.	Raised (in.)	Cubic inches	Std. ctn. qty.
<b>Double gang</b>			
82C-2G-0	Flat	—	20
82C-2G-1/4	1/4	3.0	20
82C-2G-1/2	1/2	6.3	20
82C-2G-5/8	5/8	7.8	20
82C-2G-3/4	3/4	9.5	20
82C-2G-1	1	12.8	10
82C-2G-1-1/4	1 1/4	17.0	10
82C-2G-1-1/2	1 1/2	20.0	10
82C-2G-2	2	26.0	10

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## Fire signal boxes

All signals point to increased safety and savings.

Ground faults and short circuits in fire alarm systems often stem from the use of a standard electrical box and can lead to severe consequences. Avoid this hazard with a 5 SQUARE fire signal box (5" x 5" x 2.875"). Its increased size and space added around the perimeter of an appliance help to prevent ground faults and short circuits.

A 5 SQUARE fire signal box also dramatically reduces stress on terminals, resulting in fewer damaged appliances. In addition, a major fire signal manufacturer allows a full complement of conductors to be routed in the box per NEC Table 314.16(B). This allows additional circuits and zones to be pulled through the 5 SQUARE fire signal box, potentially reducing conduit. On a large construction project, these savings can really add up!

- Twice the volume as standard electrical boxes
- Save on labor, increase profits
- Eliminate troubleshooting time and costs
- Fully upgradeable system
- Available in red powder-coat finish or zinc-galvanized

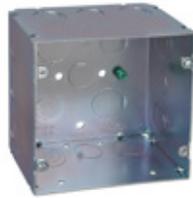
NEC and National Electric Code are registered trademarks of the National Fire Protection Association, Inc.



## Fire signal boxes



82181-12-1



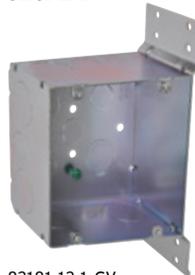
82181-1234



82181-1234-1



82181-1234-RD



82181-12-1-CV



82181-1234-CV



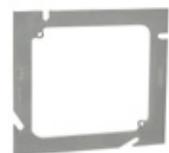
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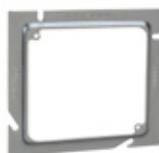
82181-1234-CVRD

### 5 SQUARE fire signal boxes

Cat. no.	Bracket	Knockouts	Red	Std. ctn. qty.
<b>2<sup>7</sup>/<sub>8</sub>" deep, 67 cubic inches</b>				
82181-12-1	—	Four sides: (1) ½" and (2) 1"; back: (3) ½" and (2) ¾"	—	20
82181-1234	—	Four sides: (1) ½" and (2) ½"/¾"; back: (3) ½" and (2) ½"/¾"	—	20
82181-1234-1	—	Four sides: (1) ½", (1) ½"/¾" and (1) 1"; back: (3) ½" and (2) ¾"	—	20
82181-1234-RD	—	Four sides: (1) ½" and (2) ½"/¾"; back: (3) ½" and (2) ½"/¾"	Yes	20
82181-12-1-CV	CV	Three sides: (1) ½" and (2) 1" back: (3) ½" and (2) ¾"	—	20
82181-1234-CV	CV	Three sides: (1) ½" and (2) ½"/¾"; back: (3) ½" and (2) ½"/¾"	—	20
82181-1234-1-CV	CV	Three sides: (1) ½", (1) ½"/¾" and (1) 1"; back: (3) ½" and (2) ¾"	—	20
82181-1234-CVRD	CV	Three sides: (1) ½", (1) ½"/¾" and (1) 1"; back: (3) ½" and (2) ¾"	Yes	20



82-52E-0



82-52E-1/4



82-52E-1/2



82-52E-5/8



82-52E-3/4



82-52E-1



82-52E-1-1/4



82-52E-1-1/2

### 5 SQUARE to 4" square box adapters

Cat. no.	Raised	Cubic inches	Std. ctn. qty.
82-52E-0	Flat	—	20
82-52E-1/4	¼	3.5	20
82-52E-1/2	½	7.2	20
82-52E-5/8	⅝	9.1	20
82-52E-3/4	¾	10.8	20
82-52E-1	1	14.7	10
82-52E-1-1/4	1¼	18.0	10
82-52E-1-1/2	1½	21.0	10

**Accessories**



82C-1



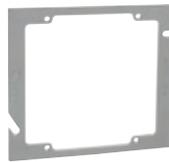
82C-1-RD

**5 SQUARE blank covers**

Cat. no.	Red	Std. ctn. qty.
82C-1	—	20
82C-1-RD	Yes	20



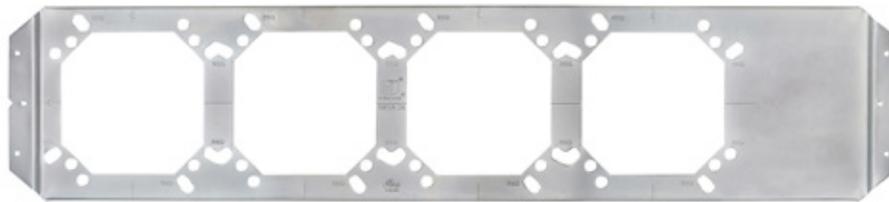
H16S-82-3



82-72E-0



FSS-82



H24S-82-4

**5 SQUARE box accessories**

Cat. no.	Description	Std. ctn. qty.
H16S-82-3	Support bracket for 5 SQUARE, 4" square and 4 <sup>11/16</sup> " boxes; 16" stud centers	20
H24S-82-4	Support bracket for 5 SQUARE, 4" square and 4 <sup>11/16</sup> " boxes; 24" stud centers	20
FSS-82	Far-side support	20
82-72E-0	5 SQUARE to 4 <sup>11/16</sup> adapter ring, flat, accepts 4 <sup>11/16</sup> " device rings	20

Note: 5 Square is a registered trademark of Randl Industries, Inc.



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